

USE THIS DETAIL FOR "3R" PROJECTS ONLY

TABLE 1							
SPEED MPH	TAPER						
LESS THAN 40	7:1						
40 TO 55	10:1						
60 TO 75	15:1						

NOTES:

- 1. APPROVED SYSTEMS: ET-2000 AND ET-PLUS MANUFACTURED BY TRINITY INDUSTRIES AND THE SKT-350, MANUFACTURED BY ROAD SYSTEMS INC. REFER TO UDOT'S GUIDELINES FOR CRASH CUSHIONS AND END TREATMENTS FOR SPECIFIC SYSTEM DETAILS.
- 2. SYSTEM OFFSET:
 - A. INSTALL SYSTEM WITH 2 FOOT OFFSET (25:1 FLARE RATE) WHEN USED WITH A TANGENT BARRIER SYSTEM.
 - B. INSTALL SYSTEM AT THE SAME FLARE RATE AS THE BARRIER INSTALLATION SYSTEM IS BEING ATTACHED TO.
- 3. POST OPTIONS: REFER TO UDOT'S GUIDELINES FOR CRASH CUSHION FOR APPROVED POST OPTIONS.
 - A. POST 1
 - 1) ET SERIES-HINGE BREAKAWAY POST (HBA)
 - 2) SKT-350 PLUG WELDED POST INSIDE FOUNDATION TUBE.
- 4. RAIL ELEMENTS
 - A. USE 121/2 FOOT RAIL ELEMENTS AS SPECIFIED BY THE SYSTEM MANUFACTURER.
 - B. DO NOT BOLT RAIL ELEMENT TO POST 1.
 - C. REFER TO MANUFACTURER SPECIFICATIONS FOR OTHER RAIL TO POST BOLT REQUIREMENTS.
- 5. COMPLETE SLOPE PREPARATIONS PRIOR TO INSTALLING SYSTEM.
 A. USE 10:1 OR FLATTER SLOPES IN APPROACH AREAS.
 - B. CONSTRUCT RECOVER AREA SLOPE AS PER CC 8A WHEN CONDITIONS PERMIT. CONSULT ENGINEER FOR ALLOWABLE SLOPES WHEN SLOPE REQUIREMENTS OF CC 8A CANNOT BE MET.
- 6. CLEAR RECOVERY AND APPROACH AREAS OF ANY FIXED OBJECTS.
 A. DO NOT PLACE SIGNS OR POLES IN APPROACH AREA.
 - B. USE BREAKAWAY SIGNS OR POLES WHEN PLACED IN RECOVERY AREA, AND MAINTAIN A MINIMUM 10 FOOT CLEARANCE TO THE SIDES AND REAR OF THE SYSTEM.
- 7. CONSTRUCT PLATFORM AS REQUIRED EVEN IF THE PLATFORM EXTENDS BEYOND THE CLEAR ZONE REQUIREMENT.
- 8. USE GUARDRAIL TRANSITION, STD DWG BA 4 SERIES, WHEN ATTACHING SYSTEM TO CONCRETE BARRIER OR BRIDGE PARAPET.
- 9. INSTALL REQUIRED MARKINGS AS PER STD DWG CC 1.
- 10.USE THE CURRENT EDITION, ROADSIDE DESIGN GUIDE TO ESTABLISH CLEAR ZONE REQUIREMENT AND LENGTH OF NEED (LON) REQUIREMENTS.

KEVISIONS									NO. DATE APPR.	
1011 × 1000011 × 01	UIAH UFARIMENI OF IKANSPOKIALION	STANDARD BRAWINGS FOR ROAD AND BRIDGE CONSTRUCTION	LACK SOUTH AND THE	S	RECOMMENDED FOR APPROVAL	JAN.01,2008	CHAIRMAN STAND FOS COMMITTIE	JAN.01,2008	DEPUTY DIRECTOR DATE	
	AILS TS PE G									

GRADING AND INSTALLATION DETAILS FOR "3R" PROJECTS CRASH CUSHION TYPE

STD DWG